

MAKING MOBILITY HAPPEN.

today / tomorrow / together

HÜBNER EXPERT TALKS

**IMPROVING LIFECYCLE SERVICE: IMPLEMENTATION OF
HÜBNER GANGWAYS DURING MID-LIFE OVERHAULS**

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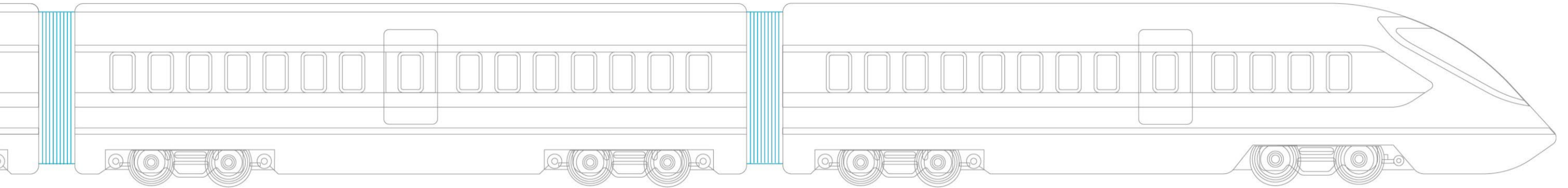


HÜBNER LIFECYCLE SERVICE

INNOTRANS 2022 - BERLIN



WELCOME TO HÜBNER. WELCOME TO AFTER SALES & SERVICE.



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LIFECYCLE MANAGEMENT

PRODUCT LIFE CYCLE PLANNING

HÜBNER offers service support for each and every phase of the gangway system life cycle.

UTILIZATION PHASE

Checks and training

- Servicing training: safety, tools, maintenance
- Evaluation of condition and repair/exchange of components

STRATEGY DEVELOPMENT

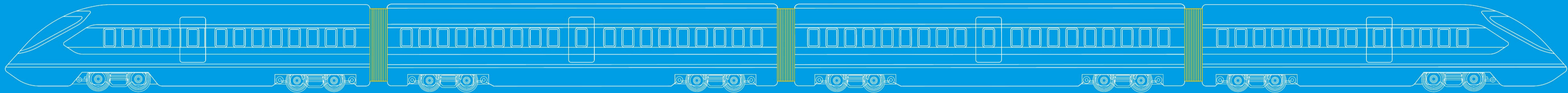
Smart planning, repair and analysis

- **Preventive** maintenance planning
- Optimization of maintenance intervals
- Measures to retain functionality
- Life cycle cost and risk analysis
- Live Recording Railway Network (LRRN)

END-OF-LIFE SERVICE

Environmentally sound disposal

- Environmentally sound disposal/recycling
- Obsolescence management



INITIAL INSTALLATION

Installation training and warranty extension

- Theoretical training: function, safety
- Practical training: handling, installation

MAINTENANCE PHASE

Fast service and outstanding spare parts management

- **Corrective** maintenance and on-site repairs
- Spare parts supply
- Documentation/Spare parts catalog

REFURBISHMENT

Cost-efficient overhauls

- **Status-oriented**, customized solutions
- Technical upgrades
- On site at the customer or at HÜBNER

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- What is your main interest in the life cycle management of gangway systems?
- What is your maintenance strategy for gangway systems?



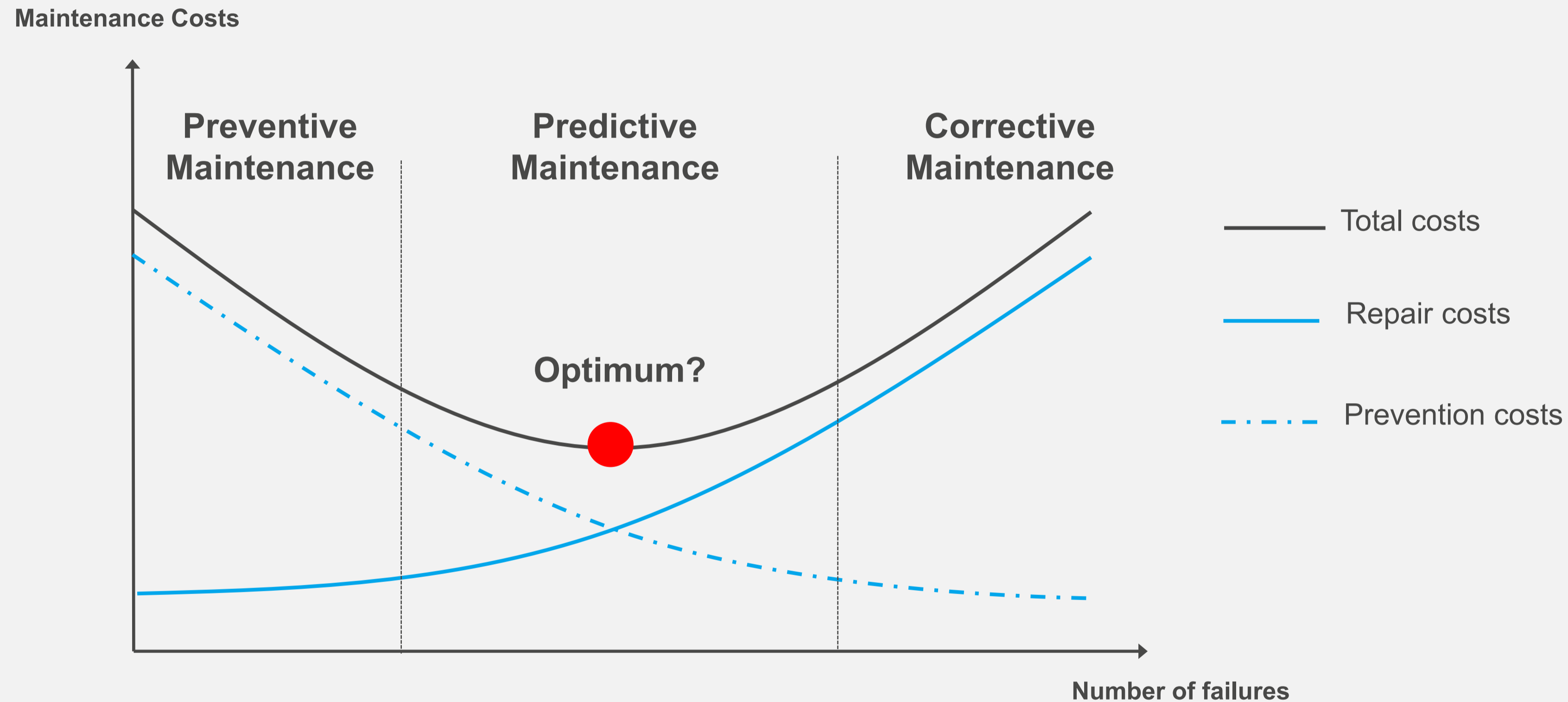
Let's find the right strategy together!

Strategy = right time + right technical solution



IMPROVING LIFECYCLE SERVICE – RIGHT TIME

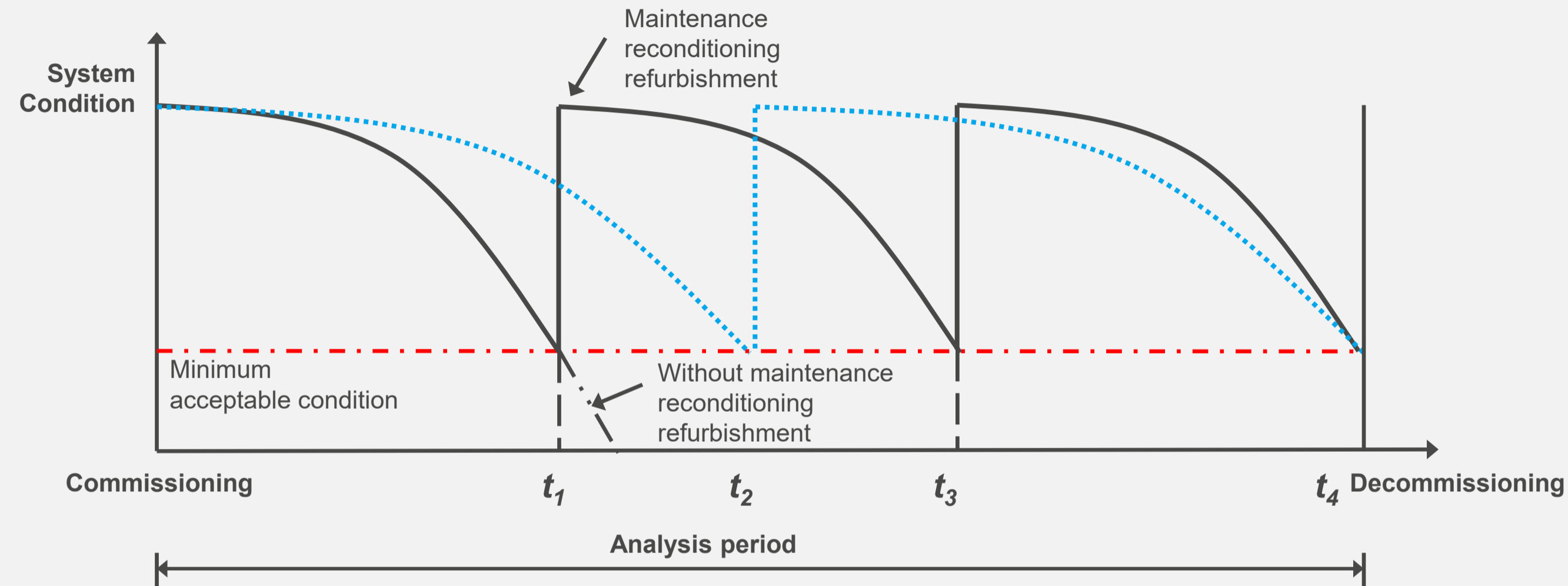
THERE ARE DIFFERENT MAINTENANCE STRATEGIES – LET'S FIND THE RIGHT ONE



Is Predictive Maintenance really the optimal maintenance strategy for every system of vehicle?

IMPROVING LIFECYCLE SERVICE – RIGHT TIME

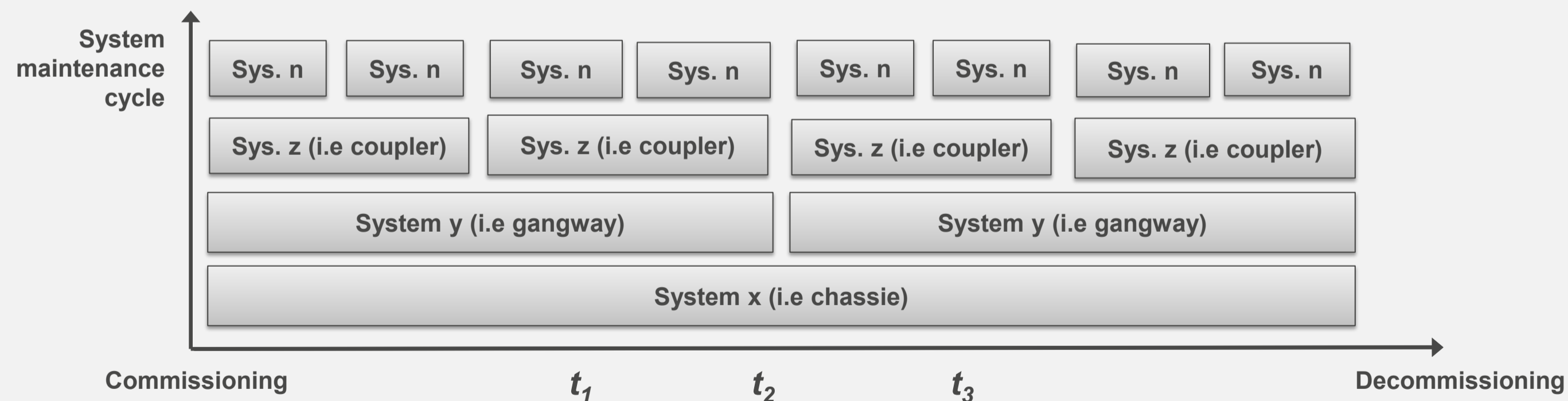
THERE ARE DIFFERENT MAINTENANCE STRATEGIES – LET'S FIND THE RIGHT ONE



— maintenance cycle system A

..... maintenance cycle system B

▶ Predictive maintenance is just reasonable if there is a chance that at least one complete maintenance cycle can be saved



▶ The optimal maintenance strategy of a vehicle is a correlation of single interdependent system maintenance strategies!

IMPROVING LIFECYCLE SERVICE – RIGHT TECHNICAL SOLUTION

THERE ARE DIFFERENT MAINTENANCE STRATEGIES – LET'S FIND THE RIGHT ONE



HÜBNER-APPROACH:

- Assembly design on the basis of several exchangeable units
- Detailed condition assessment per assembly

Based on our assembly-view there are three options:

- a) Reuse
- b) Change → „1-to-1“ or modified
- c) Repair

Main goal: Reuse of as many components as possible (Costs ↓) while ensuring a maximum service life of the entire system (Availability / Lifetime ↑)

▶ Our Fleetchecks (at customers site, at HÜBNER or remote) bring a condition based recommendation (Outcome Report) and are the basis to define the right strategy.

Thank you for your kind attention!

